

9800025

THE UNIVERD STAYLES OF ANTERIOR

TO ALL TO WHOM THESE; PRESENTS; SHALL, COME;

Hartz Seed – A Unit of Monsanto

There has been presented to the

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE basic seed of the variety in a public repository as provided by LAW, the right to exclude others om selling the variety, or offering it for sale, or reproducing it, or importing it, or exporting it, ONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN ing a hybrid or different variety therefrom, to the extent provided by the Plant Variety TON ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'Hartz H 4994 RR'

In Vestimonn Mucrost, I have hereunto set my hand and caused the seal of the Plant Institute Frontection Office to be affixed at the City of Washington, D.C. this thirty-first day of Warch, in the year of our Lord two thousand.

U.S. DEPARTMENT OF ACRICULTU	te on all reproductions.	· ·	FORM APPROVED - OMB NO. 0581
AGRICULTURAL MARKETING SERV SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIET	URE	The following statements are ma 1974 (5 U.S.C. 552a) and the Pa	de in accordance with the Privacy A perwork Reduction Act (PRA) of 199
, ,		Application is required in order	to determine if a plant maintain
APPLICATION FOR PLANT VARIETY PROTE linstructions and information collection burden	ECTION CERTIFICATE	certificate is to be issued (7 U.S. until certificate is issued (7 U.S.C	C. 2421). Information is held consid
NAME OF APPLICANT(S) (as it is to appear on the Certificate)	statement on reverse)	2. TEMPORARY DESIGNATION OR	
Hartz Seed - A Unit of Monsa	nto.	EXPERIMENTAL NUMBER	3. VARIETY NAME
- one of nonda	arco	Hartz HX4994 RR	Hartz variety
			H4994 Roundup Ready
. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code,		6. TELEPHONE (include area code)	FOR OFFICIAL USE ONLY
P. O. Box 946 2478 Highway	130 Cast	672-4/24	PVPO NUMBER
901 N. Park Avenue	gfd 70 of 199	(870) 673-8565 -	600000=
Stuttgart, AR 72160	. 0 .	6. FAX finclude area code) MODELE	9800025 F DATE
•		(870) 472-2586	P
	•	(870) 673-2838	13NOV97
GENUS AND SPECIES NAME	8. FAMILY NAME (Botan	in the state of th	G
Glycine Max	Leguminose	•	FILING AND EXAMINATION FEE:
		· · ·	E 2450.00
CROP KIND NAME (Common name)			S DATE
Soybean			1 27 OCJ97
IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF OR	GANIZATION (corporation, partnership	D. ASSOCIATION, etc. /Common name)	C CERTIFICATION FEE:
corporation		The second secon	500
IF INCORPORATED, GIVE STATE OF INCORPORATION		12. DATE OF INCORPORATION	E DATE /2 /20
Delaware		1984	11/8/99
NAME AND ADDRESS OF APPLICANT REPRESENTATIVEISI, IF ANY,	TO SERVE IN THIS APPLICATION A	ND RECEIVE ALL PAPERS	14. TELEPHONE (include area code)
DI. Edward W. Brown I loyd Ho	ancock, Station 1	Manager	870-672-4124
Hartz Seed - A Unit of Monsa 901 N. Park Avenue 2478 High	into	115 O.X.7.1999	(870) 673-8565
Stuttgart, AR 72160	ghway 130 East	103,000	16. FAX (include area code) Moleile
bedeegdie, AR 72100			
			(870) 673-2838
CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED OF	1		(870) 673 2838 672-2586
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a. M. Exhibit A. Origin and Breeding History of the Variety b. M. Exhibit B. Statement of Distinctness c. M. Exhibit C. Objective Description of the Variety d. M. Exhibit D. Additional Description of the Variety (Optional) e. M. Exhibit E. Statement of the Basis of the Applicant's Ownership f. M. Voucher Sample (2,500 viable untreated seeds or, for tuber project. G. M. Filing and Examination Fee (\$2,450), made payable to "Treasure ODES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLMY STATEMENT SPECIFY THAT SEED OF THIS VARIETY BE LIMENTATIONS? M. YES M. NO AS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEL MES SIT "yes," give names of countries and dates) The applicant(s) declare that a viable sample of basic send of the variety was possible and the projection.	pagated varieties verification that tiss or of the United States* (Mail to PVPC). D BY VARIETY NAME ONLY, AS A CENT NO. 11 P. III. NO. 41 P. III. NO. 41 P. III. NO. 12 P. III. NO. 13 P. III. NO. 14 P. III. NO. 15 P. III. NO. 15 P. III. NO. 15 P. III. NO. 15 P. III. NO. 16 P. III. NO. 17 P. III. NO. 18 P.	ELASS OF CERTIFIED SEED? (See Section in Item 20) E*YES* TO ITEM 18, WHICH CLASSES OF ITEM 19, WHICH CLASSES OF ITEM 19, WHICH CLASSES OF ITEM 19, OR OTHER 19, OR OTHER ITEM 19, OR OTHER 19, OR OTHER ITEM 19, OR OTHER	in an approved public repository) ### Sale) of the Plant Variety Protection Acti PRODUCTION BEYOND BREEDER SEED? CERTIFIED CERTIFIED CERTIFIED CERTIFIED CERTIFIED

EXHIBIT A Origin and Breeding History

Summer 1993

Original cross made at Stuttgart, AR

Cross number was 93323

Parentage: Hartz 4994 x F1(Hartz 5033 x Hartz 4464 RR)

Hartz 4994 = Asgrow 5474 x Pioneer 5482

Hartz 5033 = Asgrow 5474 x Essex

Hartz 4464 RR = Hartz 4464(3) x Monsanto 40-3-2

December 1993

Hartz 4994 crossed with Roundup Ready F1 of cross F1 plants sprayed

with RoundupTM herbicide to identify tolerant plants. Cross made in

winter nursery near Ponce, Puerto Rico.

March 1994

Hartz 4994 crossed with BC1F1 plants from previous crossing. Cross

made in winter nursery near Ponce, Puerto Rico.

July 1994

Hartz 4994 crossed with Roundup Ready BC2F1 plants from previous

crossing. Cross made at Stuttgart, AR.

December 1994

BC3F1 seed planted in winter nursery near Ponce, Puerto Rico. Plants

were sprayed with RoundupTM herbicide to identify tolerant plants.

February 1995

Seeds from BC3F1 Roundup tolerant plants were planted in winter nursery near Ponce, Puerto Rico to produce about 400 BC3F2 plants. Approximately 300 BC3F2 plants with a phenotype similar to the

recurrent parent were selected.

May 1995

About 300 BC3F3 single plant rows planted at Stuttgart, AR. About

250 of these were selected and bulked at maturity to produce breeder

seed.

October 1995

Planted 4 acre breeder seed increase near Ponce, Puerto Rico.

January 1996

Planted 70 acre seed increase near Hernando, Cordoba, Argentina.

June 1996

Planted about 800 acres of seed production near Stuttgart, AR.

Yield Tested in AR-MS-TN-LA-MO-SC-NC.

Kinds and Frequency of variants observed:

Plants with purple flowers and brown pubescence have been observed at a frequency of about 2 seeds/lb. Plants with white flowers and gray pubescence have been observed at a frequency of about 1 seed/lb.

EXHIBIT B Novelty Statement

To our knowledge, Hartz variety H4994 Roundup Ready most closely resembles the variety Manokin, however, it is two days earlier and exhibits tolerance to the overthe-top applications of Roundup $^{\text{M}}$ herbicide.

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE

PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MARYLAND 20705

OBJECTIVE DESCRIPTION OF VARIETY

	SOYBEAN (Glyc	ine max L.)	
NAME OF APPLICANT(S) Hartz Seed - A Unit of Monsanto	TEMPORARY DESIGNATIO Hartz HX4994 RR	''	RIETY NAME tz variety H4994 Roundup Ready
ADDRESS (Street and No., or R.F.D. No., City, State,	and Zip Code)		FOR OFFICIAL USE ONLY
		PVP	ONUMBER 9800025
Choose the appropriate response which characterizes the boxes provided, place a zero in the first box when numb description. Other characters should be described when	er is 9 or less (e.g <u>. 0</u> <u>9</u>). S	low. When the number of signi- tarred characters are considere	ficant date in you answer is fewer than the number of fundamental to an adequate soybean variety
1. SEED SHAPE			
	W T		
2	2 Subarical Flattoned (LA)	Tratio >1 2: L/F ratio = <1 2)	
1= Spherical (L/W, L/T, and T/W ratios - <1.2) 3= Elongate (L/T ratio > 1.2; T/W = <1.2)	4= Elongate Flattened (L)	ratio >1.2; L/T ratio = <1.2) T ratio >1.2; T/W >1.2)	
★ 2. SEED COAT COLOR			
1 1= YELLOW 2= GREEN 3= BR	OWN 4= BLACK 5= OT	HER (Specify)	
3. SEED COAT LUSTER			
1 = Dull (Corsoy 79'; Braxton')	2= Shiny (Nebsoy'; Gasoy 17")		
★ 4. SEED SIZE: (Mature Seed)			
1 4 Grams per 100 seeds			
★ 5. HILUM COLOR: (Mature Seed)			
6 1= Buff 2= Yellow 3= Brown	4= Gray 5= Imperfect Blac	6 6= Black 7= Othe	r (specify)
★ 6. COTYLEDON COLOR: (Mature Seed)			
1 1= Yellow 2= Green			
★ 7. SEED PROTEIN PEROXIDASE ACTIVITY:			
2 1= Low 2= High			
★ 8. SEED PROTEIN ELECTROPHORETIC BAND:			
0 l= Type A (SP1 ^a) 2= Type B (SP1 ^b)		-	
★ 9. HYPOCOTYL COLOR:			
1 1= Green only (Evans'; 'Davis')		reen with bronze band below co	
3= Light Purple below cotyledons (Beeson';	Pickett 71') 4= D	ark Purple extending tounifoliate	e leaves (Hodgson'; Coker Hampton 266A')
★10. LEAFLET SHAPE:			
3 1= Lanceolate 2= Oval 3= Ov	rate 4= OTHER (Specify)		
FORM LMGS 470-57 (6-87) (Edition of 2-82 is obs	solete)		

11.	LEAFI	LET SIZE:								
2	1:	= Small ('Ams	soy 71'; 'A5312')	2= Mediu	ım ('Corsoy 79'; t	Gasoy 17')				
<u> </u>	3:	= Large ('Crav	wford'; 'Tracy')							
12.	LEAF	COLOR:								
2	1:	= Light Green	('Weber'; 'York')	2= Mediu	ım Green (Corso	y 79'; Braxton')				
Li	 3:	= Dark Green	('Gnome'; 'Tracy')							
★13 .	FLOW	ER COLOR:								
1	1=	= White	2= Purple	3= White with P	urple throat				•	
★ 14.	POD C	COLOR:								
2	1=	= Tan	2= Brown	3= Black						
★ 15.	PLAN	T PUBESCEN	NCE COLOR:							
2	7 ₁₌	= Gray	2= Brown (Tawny	<i>(</i>)			v.			
		<u> </u>		.,						***************************************
16.	٦	TYPES:								
2		=Slender ('Ess = Bushy ('Gno	sex'; 'Amsoy 71')	2= Inter	mediate ('Amcor';	Braxton')				
<u> </u>		-	, , , , , , , , , , , , , , , , , , , ,			••••				
★ 17.	PLANT	ГНАВІТ								
I			Gnome'; Braxton')		2= Semi-Dete	rminate ('Will')				
	3= Ir	ndeterminate ((Nebsoy'; 'Improved	l Pelican')						
★ 18.	MATU	RITY GROU	P:							
★ 18.		1		3-0	4 ĭ	5 II	6 III	7- IV	8- V	
* 18.	MATU 7	1= 000	2= 00	3= 0 11= VIII	4= I 12= IX	5= II 13= X	6= III	7= IV	8= V	
	7	1= 000 9= VI	2= 00 10 = VII	11= VIII	12= IX	13= X	6= III	7= IV	8= V	
	7 DISEA	1= 000 9= VI	2= 00 10 = VII DN: (Enter 0 = Not	11= VIII	12= IX	13= X	6= III	7= IV	8= V	
	7 DISEA	1= 000 9= VI SE REACTIO	2= 00 10 = VII DN: (Enter 0 = Not EASES:	11= VIII Tested; 1 = Susce	12= IX ptible; 2 = Resista	13= X	6= III	7= IV	8= V	
★ 19.	7 DISEA BACT	1= 000 9= VI SE REACTION FERIAL DISE Bacterial Po	2= 00 10 = VII ON: (Enter 0 = Not EASES: ustule (Xanthomona	11= VIII Tested; 1 = Susce	12= IX ptible; 2 = Resista	13= X	6= III	7= IV	8= V	
★ 19.	7 DISEA BACT	1= 000 9= VI SE REACTION FERIAL DISE Bacterial Po	2= 00 10 = VII DN: (Enter 0 = Not EASES:	11= VIII Tested; 1 = Susce	12= IX ptible; 2 = Resista	13= X	6= III	7= IV	8= V	
★ 19.	7 DISEA BACT	1= 000 9= VI SE REACTION FERIAL DISE Bacterial Portion Bacterial B	2= 00 10 = VII ON: (Enter 0 = Not EASES: ustule (Xanthomona	11= VIII Tested; 1 = Suscers s phaseoli ar. var. s glycinea)	12= IX ptible; 2 = Resista	13= X	6= III	7= IV	8= V	
★ 19.	7 DISEA BACT 2 2 0	1= 000 9= VI SE REACTION FERIAL DISE Bacterial Portion Bacterial B	2= 00 10 = VII ON: (Enter 0 = Not EASES: ustule (Xanthomonas light(pseudomonas tabaci, seudomonas tabaci,	11= VIII Tested; 1 = Suscers s phaseoli ar. var. s glycinea)	12= IX ptible; 2 = Resista	13= X	6= III		8= V	
★ 19.	7 DISEA BACT 2 2 0	1= 000 9= VI SE REACTION FERIAL DISE Bacterial Por Bacterial Birth Wildfire (PS) GAL DISEASS	2= 00 10 = VII ON: (Enter 0 = Not EASES: ustule (Xanthomonas light(pseudomonas tabaci, seudomonas tabaci,	11= VIII Tested; 1 = Susce s phaseoli ar. var. s glycinea)	12= IX ptible; 2 = Resista	13= X	6= III	7= IV	8= V	
★ 19.	DISEA BACT 2 0 FUNC	1= 000 9= VI SE REACTION FERIAL DISE Bacterial Portion Bacterial Birown Sports	2= 00 10 = VII ON: (Enter 0 = Not EASES: ustule (Xanthomonas light(pseudomonas tabaci) ES:	11= VIII Tested; 1 = Susce as phaseoli ar. var. s glycinea)	12= IX ptible; 2 = Resista	13= X	6= III		8= V	
★ 19.	DISEA BACT 2 0 FUNC	1= 000 9= VI SE REACTION FERIAL DISE Bacterial Poly Bacterial Bi Wildfire (Psi GAL DISEASI Brown Spo Frogeye L	2= 00 10 = VII ON: (Enter 0 = Not EASES: ustule (Xanthomonas light(pseudomonas tabaci, escudomonas tabaci	11= VIII Tested; 1 = Susce s phaseoli ar. var. s glycinea)) a sojina)	12= IX ptible; 2 = Resista	13= X			8= V	
*19. * * *	DISEA BACT 2 0 FUNC	1= 000 9= VI SE REACTION FERIAL DISE Bacterial Bi Wildfire (P: GAL DISEAS) Brown Spo Frogeye L Race 1	2= 00 10 = VII ON: (Enter 0 = Not EASES: ustule (Xanthomonas light(pseudomonas tabaci, escudomonas tabaci	11= VIII Tested; 1 = Susce as phaseoli ar. var. s glycinea) asojina) Race 3	12= IX ptible; 2 = Resista sojensis)	13= X			8= V	
*19. * * *	DISEA BACT 2 0 FUNC 2 0 0	1= 000 9= VI SE REACTION FERIAL DISE Bacterial Pu Bacterial B Wildfire (Pa GAL DISEAS) Brown Spo Frogeye L Race 1 (1) Target Spot	2= 00 10 = VII ON: (Enter 0 = Not EASES: ustule (Xanthomonas light(pseudomonas tabaci, ES: ot (Septoria glycines eafspot (Cercospora Company) Race 2	11= VIII Tested; 1 = Susce as phaseoli ar. var. s glycinea) asojina) Race 3	ptible; 2 = Resista sojensis) Race 4	13= X			8= V	
*19. * * *	DISEA BACT 2 0 FUNC 2	1= 000 9= VI SE REACTION FERIAL DISE Bacterial Pu Bacterial B Wildfire (Pa GAL DISEAS) Brown Spo Frogeye L Race 1 (1) Target Spot	2= 00 10 = VII ON: (Enter 0 = Not EASES: ustule (Xanthomonas light(pseudomonas tabaci, escudomonas tabaci	11= VIII Tested; 1 = Susce as phaseoli ar. var. s glycinea) asojina) Race 3	ptible; 2 = Resista sojensis) Race 4	13= X			8= V	
*19. * * *	DISEA BACT 2 0 FUNC 2 0 0	1= 000 9= VI SE REACTION FERIAL DISE Bacterial Policy Bacterial Bi Wildfire (Policy Frogeye L Race 1 (C) Target Spot	2= 00 10 = VII ON: (Enter 0 = Not EASES: ustule (Xanthomonas light(pseudomonas tabaci, ES: ot (Septoria glycines eafspot (Cercospora Company) Race 2	11= VIII Tested; 1 = Suscers sphaseoli ar. var. s glycinea) a sojina) Race 3 iicola)	ptible; 2 = Resista sojensis) Race 4	13= X			8= V	
*19. * * *	7 DISEA BACT 2 0 FUNC 2 0 0 2	1= 000 9= VI SE REACTION FERIAL DISE Bacterial Policy Bacterial Bi Wildfire (Policy Bacterial Bi Wildfire (Policy Bacterial Bi Target Spot Downy Mile Powdery Mile	2= 00 10 = VII ON: (Enter 0 = Not EASES: ustule (Xanthomonas light(pseudomonas tabaci, ES: ot (Septoria glycines eafspot (Cercosporato) Race 2 (Corynespora cass dew (Peronosporato)	11= VIII Tested; 1 = Suscers s phaseoli ar. var. s glycinea) a sojina) Race 3 iicola) rifoliorum var. ma radiffusa)	ptible; 2 = Resista sojensis) Race 4	13= X			8= V	
*19. * * *	7 DISEA BACT 2 0 FUNC 2 0 2 2 2 2 2 2	1= 000 9= VI SE REACTION FERIAL DISE Bacterial B Wildfire (P: GAL DISEAS) Brown Spo Frogeye L Race 1 (1) Target Spot Downy Mile Powdery Mile Brown Sten	2= 00 10 = VII ON: (Enter 0 = Not EASES: ustule (Xanthomonas light(pseudomonas tabaci) ES: ot (Septoria glycines eafspot (Cercosporate) Race 2 (Corynespora cass dew (Peronosporate)	11= VIII Tested; 1 = Susce is phaseoli ar. var. siglycinea) a sojina) Race 3 iicola) rifoliorum var. maradiffusa)	ptible; 2 = Resista sojensis) Race 4 nshurica)	13= X			8= V	

	N: (ENTER 0 = Not Tested; 1=SusceptASES: (Continued)	otible; 2=Resistant)(Continued)	
A14	Blight (<i>Diaporthe phaseolorum</i> var. s	ojae)	
Purple Seed S	Stain (Cercospora kikuchii)		
	Root rot (Rhizoctonia solani)		
·	Rot (Phytophthora megasperma var. s	rojae)	·
* 1 Race 1	1 Race 2 1 Race 3		0 Race 6 1 Race 7
Race 8	Race 9 Other		
VIRAL DISEAS			
2 Bud Blight (7	Tobacco Ringspot Virus)		
7 Yellow Mosa	ic (Bean Yellow Mosaic Virus)		
* 0 Cowpea Mos	aic (Cowpea Chlorotic Virus)		
- ا	Bean Pod Mottle Virus)		
٠	Soybean Mosaic Virus)		
NEMATODE D	ISEASES:		
	Nematode (Heterodera glycines)		
* Race 1	Race 2 2 Race 3	Race 4 2 Other9,	14
0 Lance Nemat	ode (Hoplolaimus Colombus)		
* 1 Southern Roc	ot Knot Nematode (Meloidogyne incog	nita)	
* 0 Northern Ro	ot Knot Nematode (Meloidogyne Hapl	a)	
Peanut root K	Inot Nematode (Meloidogyne arenaria)	
0 Reniform Ne	matode (Rotylenchulus reniformis)		
OTHER DIS	EASE NOT ON FORM (Specify)		
20 DIVISION OCICAL P	RESPONSES: (Enter 0 = Not Tested; 1	- Susceptible: 2 = Resistant)	
20. PHISIOLOGICAL R	ESPONSES. (Ellief 0 = Not Tested, 1	= Susceptione, 2 = Resistant/	
* 0 I ron Chloros	is on Calcareous Soil		
Other (Specif	- Ty)		
21. INSECT REACTION	: (Enter 0 = Not Tested; 1 = Susceptib	ole; 2 = Resistant)	
0 Mexican Bea	n Beetle (Epilachna varivestis)		
2 Potato Leaf H	Hopper (Empoasca fabae)		
Other (Specif	ŷ)		
22. WHICH VARIETY M	MOST CLOSELY RESEMBLES THA	T SUBMITTED.	
CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	Manokin	Seed Coat Luster	
Leaf Shape	Manokin	Seed Size	
Leaf Color	Manokin	Seed Shape	
Leaf Size		Seedling Pigmentation	
ECODA LACS AND STA	V2\		

b

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

VARIETY	NO. OF DAYS TO MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAF S12		SEED CON	TENT	SEED SIZE G/100 SEEDS	NO. OF SEED IN POD
				CM WIDTH	CM LENGTH	% PROTEIN	% OIL		
SUBMITTED Hartz variety H4994 Roundup Ready	130	1.0	81					14.5	2-3
NAME OF SIMILAR VARIETY Manokin	132	1.0	76					15.0	2-3

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

- 1. Caldwell, B.E., ed. 1973. Soybean: Improvement, Production, and Uses. Amer. SocAgron. Monograph No. 16

- Buttery, B.R. and R. I. Buzzell, 1968. Peroxidase activity in seeds of soybean varieties. CropSci., 8: 722-725.
 Hymowitz, T. 1973. Electrophoretic analysis of SBTI-A in the USDA soybean germplasm collection. CropSci., 13: 420-421.
 Payne, R.C. and L.F. Morris, 1976. differentiation of soybeancultivars by seedling pigmentation patterns. J. SeedFechnol. 1: 1-19.

STATEMENT OF THE BASIS OF OWNERSHIP	certificate is to be issued (7 U.S. until certificate is issued (7 U.S.C	C. 2421). Information & held . 2426).
. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Hartz Seed - A Unit of Monsanto	Hartz HX4994RR	I
•	Harez HA4994RR	Hartz variety H4994 Roundup
	1 .	Ready
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)	5. TELEPHONE (include area code)	6. FAX (include area code)
P. O. Box 946	(870) 673-8565	(870)673-2838
901 N. Park Avenue	7. PVPO NUMBER	(070)073 2030
Stuttgart, AR 72160	60000	See .
Does the applicant own all rights to the variety? Mark an "X" in appropriate t	00000	<u>~</u>
an appropriate to	NOCK. It no, please explain.	X YES NO
•		
s the applicant (individual or company) a U.S. national or U.S. based company	?	X YES NO
f no, give name of country		X YES NO
s the applicant the original breeder? If no, please answer the following:		
	Ĺ	X YES NO
a. If original rights to variety were owned by individual(s):		
Is fare) the original breeder(s) a H.S. pasianata 2 16 in the		
Is (are) the original breeder(s) a U.S. national(s)? If no, give name of co		
Is (are) the original breeder(s) a U.S. national(s)? If no, give name of co	untry	· .
Is (are) the original breeder(s) a U.S. national(s)? If no, give name of co		· .
Is (are) the original breeder(s) a U.S. national(s)? If no, give name of co		Y YES NO
Is (are) the original breeder(s) a U.S. national(s)? If no, give name of co b. If original rights to variety were owned by a company:		YES NO
is (are) the original breeder(s) a U.S. national(s)? If no, give name of co		Y YES NO
ls (are) the original breeder(s) a U.S. national(s)? If no, give name of content of the original rights to variety were owned by a company: Is the original breeder(s) U.S. based company? If no, give name of cour		X YES NO
Is (are) the original breeder(s) a U.S. national(s)? If no, give name of combands of the original rights to variety were owned by a company: Is the original breeder(s) U.S. based company? If no, give name of cour		YES NO
Is (are) the original breeder(s) a U.S. national(s)? If no, give name of co		X YES NO
ls (are) the original breeder(s) a U.S. national(s)? If no, give name of content of the original rights to variety were owned by a company: Is the original breeder(s) U.S. based company? If no, give name of cour		YES NO
Is (are) the original breeder(s) a U.S. national(s)? If no, give name of combands of the original rights to variety were owned by a company: Is the original breeder(s) U.S. based company? If no, give name of cour		X YES NO

- of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- 2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- 3. If the applicant is an owner who is not the original breeder, both the original breeder and the applicant must meet one of the above criteria.

The original breeder may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act definition.

Public reporting burden for this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering a maintaining the data needed, and completing and reviewing the col ection of information. Send comments regarding this burden estimate or any other expect of this collection of inform Suggestions for reducing this burden, to Department of Agriculture, Clearence Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB N 0581-0055 and form number in your letter.

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